PORSF
11.3.31.1.1 V41

HARTCROWSER
Delivering smarter solutions

www.hartcrowser.com

Underground Injection Well Registration
Port of Portland Marine Terminal 1
2200 NW Front Avenue
Portland, Oregon 97209

Anchorage

Box Y:

Boston

The subject drywell is located in the Portland Basin near the mouth of the Willamette Valley about 500 feet southwest of the Willamette River at River Mile 11. The drywell discharges to unconfined silty sand to sand dredge fill material. This unit is about 20 feet thick in the area of the drywell and overlies about 50 feet of Recent alluvial deposits that consist of bedded silts, sandy silts, and fine-grained sands, with discontinuous lenses of clays and pebble-sized gravels. The alluvial unit is generally unconfined; however, the unit is slightly stratified and the fine-grained beds (clays and silts) within the unit may act as localized confining or semi-confining strata.

Chicago

Denver

The silty sand fill and Recent alluvial deposits are underlain by the Pliocene Troutdale Formation. The Troutdale Formation in the area is composed of poorly to moderately consolidated conglomerates with thin interbeds of claystone, siltstone, and sandstone and is estimated to be about 130 feet thick beneath the Terminal 1 area. The productive regional aquifers are the poorly consolidated sands and gravels within the Troutdale Formation at depths greater than 100 feet and are generally confined with the interbedded claystones acting as aquitards. The Troutdale Formation is underlain by the Miocene Columbia River Basalt Group (i.e., basement).

Fairbanks

Jersey City

Discharges from the drywell initially flow downward until encountering groundwater at depths that typically range from about 15 feet to 25 feet below ground surface (in response to the varying Willamette River stages) and then migrate with groundwater to the Willamette River. The thickness of the alluvial deposits provide an adequate filtration medium, and clay aquitards within the Troutdale Formation act as confinement barriers to protect the local groundwater resource (i.e., aquifers within the Troutdale Formation).

Juneau

Long Beach

HART CROWSER, INC.

LEON LAHIERE, R.G.
Senior Project Geologist

REGISTERED PROFESSIONAL
OREGON
LEON LAHIERE
No. G1255
GEOLOGIST

Portland

USEPA SF
1286667

Seattle

Five Centerpointe Drive, Suite 240
Lake Oswego, Oregon 97035-8652
Fax 503.620.6918
Tel 503.620.7284

POPT1S700135